Comparisons of Job Characteristics

Focus Occupation: Electro-Mechanical Technicians (17-3024)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Electro-Mechanical Technicians (17-3024)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mechanical	6.8	18.0	15.6	<	Expanded education and/or training may be required
Engineering and Technology	5.7	16.1	14.2	<	Expanded education and/or training may be required
Design	5.2	15.1	7.8	<<	Extensive education and/or training may be required
Production and Processing	6.0	12.6	10.8	<	Expanded education and/or training may be required
Physics	4.3	10.2	6.6	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 49

Focus Occupation: Electro-Mechanical Technicians (17-3024)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Operation Monitoring	6.6	10.7	13.9	>>	Skill level is likely more than sufficient
Quality Control Analysis	5.9	10.2	12.9	>	Skill level is likely sufficient
Operation and Control	5.4	9.0	10.5	>	Skill level is likely sufficient
Troubleshooting	4.5	7.3	12.8	>>	Skill level is likely more than sufficient
Equipment Maintenance	3.5	6.8	10.8	>>	Skill level is likely more than sufficient
Repairing	3.4	6.6	12.3	>>	Skill level is likely more than sufficient
Equipment Selection	3.3	6.2	9.2	>>	Skill level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 86

Focus Occupation: Electro-Mechanical Technicians (17-3024)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Category Flexibility	9.0	10.7	9.2	<	Some improvement in abilities may be required
Control Precision	6.6	10.2	12.1	>	Current ability level is likely sufficient
Visualization	7.5	10.2	10.8	0	Current ability level may be sufficient
Number Facility	6.3	9.7	8.8	<	Some improvement in abilities may be required
Perceptual Speed	7.4	9.6	11.2	>	Current ability level is likely sufficient
Visual Color Discrimination	6.4	9.2	10.6	>	Current ability level is likely sufficient
Wrist-Finger Speed	3.2	5.5	5.4	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 93

Focus Occupation: Electro-Mechanical Technicians (17-3024)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Work Activities	Exclusivity of Activity
Analyze technical data, designs, or preliminary specifications	47
Calculate engineering specifications	64
Communicate technical information	4
Develop plans for programs or projects	31
Evaluate engineering data	60
Examine engineering documents for completeness or accuracy	62
Inspect facilities or equipment for regulatory compliance	51
Modify electrical or electronic equipment or products	74
Operate precision test equipment	81
Prepare technical reports or related documentation	22
Read blueprints	10
Read schematics	34
Read technical drawings	7
Record test results, test procedures, or inspection data	48
Set up and operate variety of machine tools	62
Test equipment as part of engineering projects or processes	67

Understand engineering data or reports	48
Understand service or repair manuals	40
Understand technical operating, service or repair manuals	6
Use electrical or electronic test devices or equipment	40
Use knowledge of metric system	39
Use precision measuring tools or equipment	17
Use scientific research methodology	21
Use technical information in manufacturing or industrial activities	67
Use technical regulations for engineering problems	61

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Electro-Mechanical Technicians (17-3024)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Tools and Technologies	Exclusivity
Business function specific software	1
Chemical evaluation instruments and supplies	10
Computer data input devices	2
Computer printers	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Development software	4
Electrical measuring and testing equipment	7
Electronic and communication measuring and testing instruments	14
Forming tools	2
Holding and clamping tools	3
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Integrated circuits	18
Length and thickness and distance measuring instruments	2
Light and wave generating and measuring equipment	4
Liquid and gas flow measuring and observing instruments	15
Machine tools	7
Measuring and layout tools	3
Metals and metallurgy and structural materials testing instruments	15
Power tools	2
Soldering and brazing and welding machinery and supplies	6
Transducers	23
Viewing and observing instruments and accessories	4
Vision protection and accessories	3

Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.